

Amendments of the Claims:

A detailed listing of all claims in the application is presented below. This listing of claims will replace all prior versions, and listings, of claims in the application. All claims being currently amended are submitted with markings to indicate the changes that have been made relative to immediate prior version of the claims. The changes in any amended claim are being shown by strikethrough (for deleted matter) or underlined (for added matter).

In the claims

1-21. (canceled)

22. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp ~~The HID driver of claim 5,~~

wherein the main driver further comprises a feedback control circuit connected to the PFC circuit, a power drive and a half bridge inverter.

23. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp~~The HID driver of claim 5,~~

wherein the starting circuit comprises a sub-starting circuit having a SIDAC connected in series to a diode and an inductor for starting the HID lamp quickly and reliably.

24. (canceled)

25. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp
The HID driver of claim 5,

wherein the starting circuit comprises a circuit having a capacitor for fine tuning an output of the HID lamp, a brightness of the HID lamp, and a low-frequency content for controlling an induced sound resonance.

26. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp
The HID driver of claim 5,

wherein the starting circuit comprises a circuit having a thyristor between a capacitor and a resistance for preventing the HID drive from restating when the HID lamp is on.

27. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp~~The HID driver of claim 5,~~

wherein the thyristor is connected to the timing circuit to control a re-starting of the HID lamp by the timing circuit.

28. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp~~The HID driver of claim 5,~~

wherein the main driver comprises a first integrated circuit (IC) for PFC and for governing preceding filtering and rectification and a second IC for power driving and the timing circuit comprises a third IC, and when input voltages of the first, second and third ICs are below predetermined values, the second and the third ICs are locked out and the first IC is maintained to be powered and ready for a re-starting.

29. (currently amended) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver having at least one capacitance contained therein for determining an output power, the main driver being connected to the input processor and a HID lamp for driving and amplifying the input power; and

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition, wherein the HID driver further comprises:

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp. ~~The HID driver of claim 1,~~

wherein the at least one capacitance is disposed between a set of switches of the main driver and an output transformer.

30. (previously presented) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver connected to the input processor and a HID lamp for driving and amplifying the input power;

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition.

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp, wherein the starting circuit comprises a circuit having a capacitor for fine tuning an output of the HID lamp, a brightness of the HID lamp, and a low-frequency content for controlling an induced sound resonance.

31. (previously presented) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver connected to the input processor and a HID lamp for driving and amplifying the input power;

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition;

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp, wherein the starting circuit comprises a circuit having a thyristor between a capacitor and a resistance for preventing the HID drive from restating when the HID lamp is on.

32. (previously presented) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver connected to the input processor and a HID lamp for driving and amplifying the input power;

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition;

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp, and a thyristor being connected to the timing circuit to control a re-starting of the HID lamp by the timing circuit.

33. (previously presented) A high intensity discharge (HID) driver for a HID lamp, comprising:

an input processor connected to an input power for suppressing a transient and an in-rush current of the input power;

a main driver connected to the input processor and a HID lamp for driving and amplifying the input power, the main driver comprising a first integrated circuit (IC) for PFC and for governing preceding filtering and rectification and a second IC for power driving and the timing circuit comprises a third IC, and when input voltages of the first, second and third ICs are below predetermined values, the second and the third ICs are locked out and the first IC is maintained to be powered and ready for a re-starting;

a protection circuit connected to the main driver and the HID lamp for controlling a timing of starting after a failure condition;

a timing circuit connected to the main driver for controlling a timing; and

a starting circuit connected to the timing circuit and the HID lamp for starting the HID lamp.